PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:   10/788,616

Filing Date: February 27, 2004

Applicant: Donald B. Farr et al.

Group Art Unit: 2419

Examiner: Jae Young Lee

Title: PROXY GUARDIAN AGENT

Attorney Docket: 7784-000973/US

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

AMENDMENT

Sir:

In response to the Office Action mailed February 5, 2009, please amend the application as follows and consider the remarks set forth below.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 10 of this paper.

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1.   (Currently Amended) A method of communicating information between heterogenous systems, the method comprising:

~~at least one of:~~

providing a publisher/subscriber architecture having a subscription manager for generating a subscription and acting as a subscriber on a first network, ~~including a publisher/subscriber architecture~~ for an entity on a second network, accepting a first information from the first network according to the subscription:

[[and]] transmitting the first information to the entity in accordance with the subscription, [[and]]

using a publication manager of the publisher/subscriber architecture to accept [[accepting]] a second information from the entity, and to act [acting] as a publisher of the second information for the [[first]] entity to at least one remote entity; and

for at least one of the publisher and subscriber operations, using the publisher/subscriber architecture to automatically register the entity to implement one of the publishing and subscription operations without a registration action by the entity.

2.   (Original) The method according to Claim 1, further comprising time division multiplexing information with the entity.

3.   (Original) The method according to Claim 1, further comprising fusing the first information and a third information and transmitting the fused information.

4.   (Currently Amended) The method according to Claim 3, wherein the first information and the third ~~informations~~ information are transmitted at different rates.

5.   (Original) The method according to Claim 1, further comprising translating the first information from a protocol associated with the first information and a second protocol associated with the second information, the first and the second protocols being different.

6.   (Original) The method according to Claim 5, wherein the first protocol is a TDM protocol and the second protocol is an Internet Protocol.

7.   (Original) The method according to Claim 5, further comprising using XML to translate between the first protocol and the second protocol.

8.   (Original) The method according to Claim 1, further comprising validating the second information by comparing the protocol associated with the second information against an expected protocol for the second information.

9.   (Original) The method according to Claim 8, wherein the validating further comprises using an XSD schema.

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10.   (Original) The method according to Claim 8, further comprising ignoring subsequent messages from the same source if the validation failed.

11.   (Original) The method according to Claim 1, further comprising accepting a request for a changed subscription from the entity and changing the subscription, whereby dynamic subscription registration occurs.

12.   (Currently Amended) An agent, to be interposed between a first network and a second network, the agent comprising:

an interface to an entity, the entity interface including a first protocol for communicating with the entity over the first network; and

an interface to a publisher/subscriber architecture on the second network, the ~~publish/subscribe~~ publisher/subscriber architecture including:

a publication manager that determines what remote entity is to receive a first quantity of information that is received by the agent from the entity and published by the agent; and

a subscription manager that establishes at least one subscription for the entity to receive publications from at least one remote entity.

~~interface to include a service to act as a publisher for the entity and a service to act as a subscriber for the entity.~~

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13.   (Original) The agent according to Claim 12, further comprising a translator to translate between the first protocol and a second protocol associated with the second network, the first and the second protocols being different.

14.   (Original) The agent according to Claim 12, wherein the translator being based on XML.

15.   (Original) The agent according to Claim 12, further comprising an information fuser wherein the fuser to fuse information from at least two sources, the sources being associated with at least one of the first network and the second network.

16.   (Currently Amended) The agent according to Claim 15, wherein the information fuser being configured to accept information from the first and second sources at different rates.

17.   (Currently Amended) The agent according to Claim 12, further comprising[[,]] a registration manager to register the first entity as at least one of a publisher and a subscriber.

18.   (Currently Amended) The agent according to Claim 12, further comprising[[,]] a validation manager to validate information received from the second network.

19.   (Currently Amended) The agent according to Claim 18, wherein the validation manager is adapted to validate the information by comparing the protocol associated with the information received from the second network with an expected protocol for information received from the second network.

20.   (Original) The agent according to Claim 19, further comprising an XSD schema used by the validation manager to validate the information received from the second network.

21.   (Original) The agent according to Claim 12, wherein the entity interface is a TDM interface.

22.   (Original) The agent according to Claim 12, wherein the second network interface includes an Internet interface.

23.   (Original) The agent according to Claim 12, further comprising being implemented in at least one of hardware, firmware, and software.

24.   (Currently Amended) A communications network, comprising

a first network having a first protocol;

an entity configured to use the first protocol to communicate over the first network; and

an agent associated with the first network interposed between the first network and a second network including a publisher/subscriber architecture, the agent adapted to act as ~~at least one of~~:

a publisher for the entity for a first information to be transmitted by the entity, and

a subscriber for the entity for a second information to be transmitted to the agent.

25.   (Original) The network according to Claim 24, further comprising:

a third network in communication with the second network and providing the second information.

26.   (Original) The network according to Claim 24, further comprising:

a third network in communication with the second network and subscribing for the first information.

27.   (Original) The network according to Claim 24, wherein the first protocol is a TDM protocol.

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28.   (Original) The network according to Claim 27, wherein the first protocol is TADIL-J.

29.   (Original) The network according to Claim 27, wherein the first protocol is VMF.

30.   (Currently Amended) The network according to Claim 24, the agent further comprising [[an]] a translator for translating between the first protocol and a second protocol.

31.   (Original) The network according to Claim 30, wherein the translator is based on XML.

32.   (Original) The network according to Claim 24, wherein the first network is associated with a mobile platform.

33.   (Original) The network according to Claim 32, wherein the mobile platform is an aircraft.

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34.   (Original)   The network according to Claim 24, the agent further comprising a validation manager to validate information received from the second network by comparing a protocol associated with the information received from the second network with an XSD schema.

35.   (Original) The network according to Claim 24 wherein the first protocol is custom to the first network.

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REMARKS

Claims 1-35 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

INFORMATION DISCLOSURE STATEMENT

The undersigned is resubmitting the previously submitted IDS with a date of "believed to be prior to February 27, 2004", which is believed to satisfy the objection to the lack of a submitted date. This same language is used for the other non-patent documents that did not have a publication date given therefore. It is believed that this wording removes this ground for objection and reconsideration, entry of the IDS in question is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 2, 5, 6, 7, 12-14, 17, 21-29, 30-33 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Giroti et al. (U.S. Pat. Pub. No. 2003/0018700) in view of Ennis et al. (U.S. Pat. No. 7,356,529). This rejection is respectfully traversed.

Initially it will be noted that independent claim 1 has been amended to more fully recite the capabilities of the publisher/subscriber architecture. For the Examiner's convenience, claim 1 is recited below in full:

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1.   (Currently Amended)   A method of communicating information between heterogenous systems, the method comprising:
~~at least one of:~~

providing a publisher/subscriber architecture having a subscription manager for generating a subscription and acting as a subscriber on a first network, ~~including a publisher/subscriber architecture~~ for an entity on a second network, accepting a first information from the first network according to the subscription;

[[and]] transmitting the first information to the entity in accordance with the subscription, [[and]]

using a publication manager of the publisher/subscriber architecture to accept [[accepting]] a second information from the entity, and to act [acting] as a publisher of the second information for the [[first]] entity to at least one remote entity; and

for at least one of the publisher and subscriber operations, using the publisher/subscriber architecture to automatically register the entity to implement one of the publishing and subscription operations without a registration action by the entity.

Independent claim 12 has been amended along somewhat similar grounds to more expressly recite the publication and subscription manager. Independent claim 1 also recites, in the last paragraph, that the publisher and subscriber operations operate to "automatically register" the entity. Independent claims 12 and 24 have each been amended to make clear that the agent acts both as a publisher and as a subscriber. It is respectfully submitted that Giroti et al. and Ennis et al. do not render independent claims 1, 12 or 24 obvious.

Giroti et al. appears to involve an integrated voice and data application delivery system 10 (Figure 2) that is coupled between an enterprise network 12 and one or more other networks 18, 20 and 22. The system 10 apparently detects the device type that is to receive information and delivers content in a manner that the receiving device (e.g., devices 24, 26 and 28 in Figure 2) can understand and use. As the Examiner has correctly noted, there is no discussion or suggestion in Giroti et al. of incorporating any

operation that resembles *"using a publication manager of the publisher/subscriber architecture"* to determine which remote entities (e.g. which of devices 24, 26 and 28) that information originating from the entity is to be published to, nor is there any discussion or suggestion of implementing an operation directed to using a "subscription manager" for generating a subscription for the entity. The subscription enables the method of claim 1 to collect and transmit information from specific selected remote networks that the entity wishes to obtain information from. Claims 1, 12 and 24 now recite both of these capabilities. It appears that Giroti et al. is only able to recognize requests from specific types of devices (i.e., devices such as Phone PDA 24, Phone 26 and PC PDA 28), and to provide information in accordance with the communications protocol being used by the specific device. This is fundamentally and far different from the presently claimed method and system.

Ennis et al. is directed to a mechanism for facilitating subscription in a publishing/ subscribe communication system. More specifically, Ennis et al. appears to involve a network switch 100 that has several modules 102(1), 102(2), etc., that can be connected together to transfer information from the port of any one or more applications on one module to the port of any one or more other applications on a different module. However, Ennis et al. does not appear to involve or suggest using a subscription manager to enable an entity to be subscribed to specified publications from a remote entity, and also enabling the entity to publish information to other select remote entities. It appears that the communication between applications in Ennis occurs within the confines of a single network switch 100. Thus, with the Ennis et al. system, the "application" 202 would appear to have to be located within the network switch 100,

whereas with the presently claimed subject matter the application would typically be located at the various entities, and would be remote from one another. The various entities would also typically be communicating over different networks. There is nothing in Ennis et al. that would appear to suggest using its teachings in connection with a system such as shown in Giroti et al.

There is further nothing in either of the Giroti et al. or Ennis et al. references that would suggest "automatically" registering an entity using the publisher/subscriber architecture as recited in claim 1. In fact, with the system of Ennis et al., it appears that the subscriber must explicitly make a subscription request, which is not required with the presently claimed method and system (see column 2, lines 8-19 of Ennis et al.).

For at least the foregoing reasons, reconsideration and withdrawal of the rejection of the foregoing claims based on Giroti et al. and Ennis et al. is respectfully requested.

Dependent claims 3, 4, 15 and 16 were rejected as being obvious in view of Giroti et al. and Ennis et al., and further in view of Chou et al. (U.S. Patent Pub. No. 2003/0018796). In view of the amendments to the independent claims and the foregoing remarks concerning Ennis et al. and Giroti et al., it is believed that this rejection has been rendered moot.

Dependent claims 8, 9, 10, 18-20 and 34 were rejected as being obvious in view of Giroti et al. and Ennis et al., and further in view of Nedbal (US 7,107,574). Again, in view of the amendments to independent claims 1, 12 and 24 and the remarks presented above concerning Ennis et al. and Giroti et al., it is believed that this rejection has been rendered moot.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: _May 5, 2009_

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